

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously presented) The use of a multimodal polyethylene composition having a MWD of 2 to 10 and comprising as comonomers to ethylene at least two C₄₋₁₂ alpha olefins in injection moulding.

2. (Original) Use as claimed in claim 1 wherein said at least two alpha olefins are selected from but-1-ene, hex-1-ene, 4-methyl-pent-1-ene, hept-1-ene, oct-1-ene, and dec-1-ene.

3. (Original) Use as claimed in claim 2 wherein said at least two alpha olefins are selected from but-1-ene and hex-1-ene.

4. (Currently amended) Use as claimed in claim 3 wherein said polyethylene composition comprises an ethylene/1-butene copolymer fraction and either ~~an~~ an ethylene/1-hexene copolymer fraction or an ethylene/1-butene/1-hexene terpolymer fraction.

5. (Previously presented) An injection moulded article produced from a multimodal polyethylene composition having a MWD of 2 to 10 and comprising as comonomers to ethylene at least two C₄₋₁₂ alpha olefins.

6. (Previously presented) An article as claimed in claim 5 comprising a bimodal polyethylene composition comprising

a) a lower molecular weight homopolymer of ethylene and .

- b) a higher molecular weight terpolymer of ethylene, 1-butene and a C₅ to C₁₂ alpha-olefin.

7. (Original) An article as claimed in claim 5 comprising a bimodal polyethylene composition comprising

- a) a lower molecular weight polymer which is a binary copolymer of ethylene and 1-butene or 1-hexene and
- b) a higher molecular weight polymer different from a) which is either a binary copolymer of ethylene and 1-hexene, or a terpolymer of ethylene, 1-butene and a C₆ to C₁₂ alpha-olefin.

8. (Original) An article as claimed in claim 5 comprising a bimodal polyethylene composition comprising a) a lower molecular weight polymer which is a terpolymer of ethylene, 1-butene and 1-hexene, and b) a higher molecular weight polymer which is a terpolymer of ethylene, 1-butene and 1-hexene.

9. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 8~~ wherein the ratio of components a) to b) is 60: 40 to 40: 60% wt.

10. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 9~~ wherein the bimodal polyethylene composition has a MWD of 2 to 8.

11. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 10~~ wherein the bimodal polyethylene composition has a density of 905 to 930 kg/m³.

12. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 11~~ wherein the bimodal polyethylene composition has an impact strength (ISO179 at 23°C) of at least 40 kJ/m².

13. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 12~~ wherein the bimodal polyethylene composition has a tensile modulus (ISO527-2) of 60 to 400 MPa.

14. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 13~~ wherein the bimodal polyethylene composition has a hexane extractable fraction (ASTM D5227) of less than 3 wt%.

15. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 14~~ wherein the bimodal polyethylene composition has a level of migration measured by immersion in olive oil of less than 10 mg/dm².

16. (Currently amended) An article as claimed in claim 5 ~~any one of claims 5 to 15~~ being medical or food packaging or a closure means.

17. A process for the preparation of an injection moulded article as claimed in claim 5 ~~any one of claims 5 to 16~~ comprising:

(I) polymerising ethylene and optionally at least one C₄₋₁₂ alpha olefin in a loop reactor in the presence of a metallocene catalyst:

(II) transferring the resulting polymer with the metallocene catalyst to a gas phase reactor and polymerising ethylene and at least one C₄₋₁₂ alpha olefin so as to form a

EXPRESS MAIL LABEL NO. EL 997678667 US
ATTORNEY DOCKET NO. 04150.0024U1
International Application No. PCT/EP2004/007897

multimodal polyethylene composition comprising as comonomers to ethylene at least two C₄-

₁₂ alpha olefins; and

(III) injection moulding said composition.